Partners' Newsletter

Keeping you informed

Spring 2020

Fanworm surveillance in the Top of the South

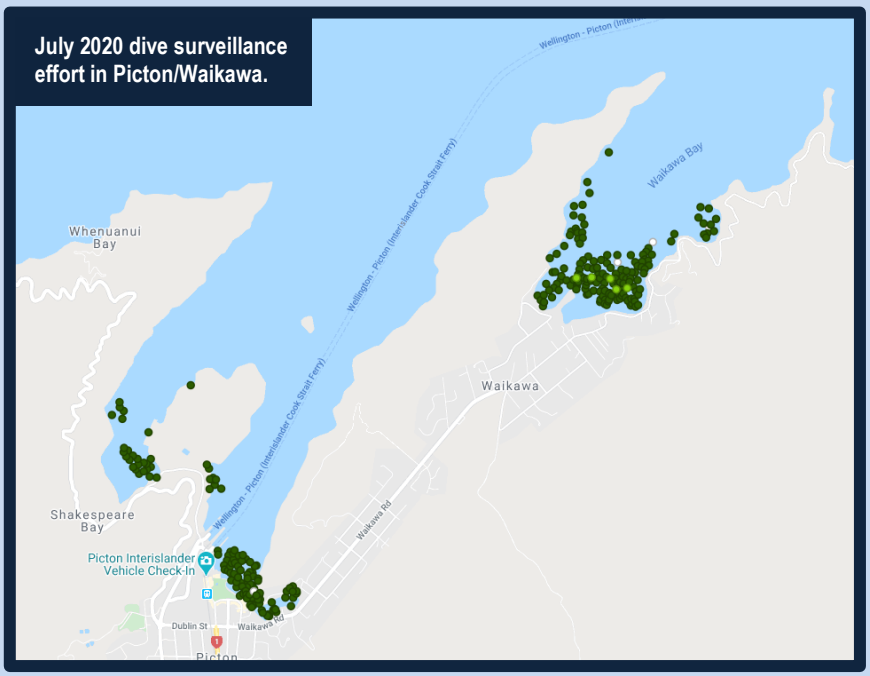
Only one fanworm infestation was found across the Top of the South in regular surveillance over the last year.

In December 2019 and February 2020, Diving Services NZ undertook dive surveillance of moorings, marina structures and vessels in Nelson Haven for Nelson City Council (in partnership with Biosecurity NZ), including sites of previous *Sabella* incursions. They detected and removed four *Sabella*. Later during June, a small cluster of *Sabella* (less than 50mm tube length) was found in the niche area around the stern drives on a vessel visiting from the Bay of Islands that was berthed in Nelson marina. The infested areas of the vessel were sealed off and treated with Dichlor. Surveillance is next planned for later in the year.

In February and late June 2020 NZ Diving Services, on behalf of Tasman District Council (and in partnership with Biosecurity NZ), undertook a comprehensive re-survey of Port Tarakohe for the presence of *Sabella*. The survey included all port structures, mooring structures as well as full seabed searches in high risk areas and randomised seabed transects in lower risk areas. No *Sabella* were found.

Throughout the months of July and August 2020 the dive team contracted by Marlborough District Council (in partnership with Biosecurity NZ) undertook a significant amount of survey work in the Picton Harbour, Picton Marina, Waikawa Bay, Waikawa Marina, as well as Shakespeare Bay. There were no detections of *Sabella* during this survey. However, several vessels were found infested with *Sabella* within the region over the past year, all having sailed from infested locations in the North Island. All infested vessels were cleared of *Sabella*. In addition, a couple of *Sabella* were detected on a mussel farm in Port Underwood during December 2019. Tracing ruled out transfer of marine farm equipment from elsewhere in the region and it is suspected that the vector may have been an infested vessel. Surveillance will continue at the farm.

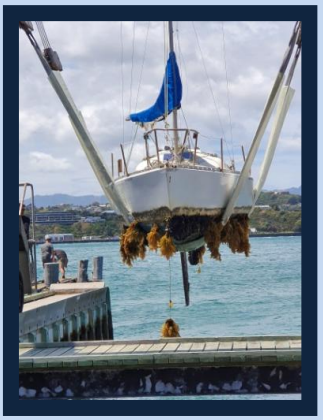
Overall, the intensive surveillance and control programme across the Top of the South continues to be effective in preventing *Sabella* from becoming established in Marlborough. These results highlight the value of regular surveillance. It also confirms the continuing need to work with other Councils elsewhere and with boaties to encourage regular checking and cleaning of vessels before they travel to other destinations.



July 2020 dive surveillance effort in Picton/Waikawa.

How to keep your bum clean workshops 2020

Free training for all boaties and professionals. Learn from the experts how to get the best value from your anti-fouling, and go in the draw to win some free anti-foul paint.

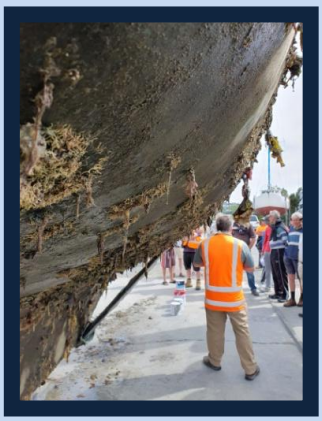


Wellington:

- **Saturday 21 November** Mana Marina Hardstand, 9am to 12 noon
  Seaview Marina Hardstand, 2pm to 5pm
- **Sunday 22 November** Chaffers Marina Hardstand, 1pm to 4pm

SAVE THE DATE

Watch this space for further workshops in the Top of the South.



Carboline New Zealand, a leading manufacturer of marine paints, is teaming up with the TOS Marine Biosecurity Partnership, Wellington, Nelson and Marlborough Sounds Marinas to bring you this opportunity to understand the hows, whys, dos, and don'ts of antifouling.

Good hull maintenance ensures you use less fuel, get to your destination faster, and do not spread marine pests. New rules in Marlborough ban highly fouled vessels from moving in and out of the region, while existing rules in Tasman and Nelson require control of Mediterranean fanworm (*Sabella spallanzanii*). This training will help you understand best practice to get good performance from your antifouling, how to prepare surfaces and apply paint. We will also cover what you need to know about the new rules and how to recognise pests.

Any queries ring or email Peter Lawless, Top of the South Marine Biosecurity coordinator at 021 894 363 or tosmarinebio@gmail.com

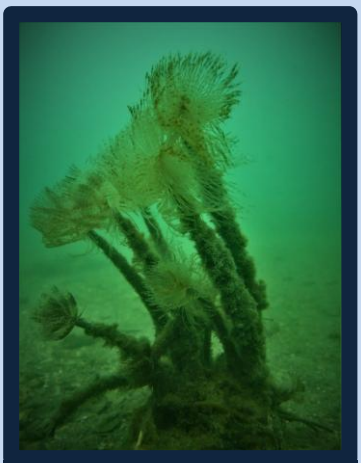
Cawthron study on Mediterranean fanworm

Cawthron Institute study finds invasion of Mediterranean fanworm impacts marine animal and bacteria communities

A recent study by Cawthron Institute has found that the presence of Mediterranean fanworm (*Sabella spallanzanii*), a high-profile marine pest first detected in New Zealand in 2008, has a significant, but subtle impact on soft-sediment coastal environments.

The study involved a 6-month field experiment between September 2017 and March 2018 in subtidal habitats along the Rangitoto Channel in Auckland's Waitemata Harbour. It found that the fanworm did not necessarily have an impact on the abundance of life in benthic environments, but it did show that the fanworm's presence changed the composition of that life.

The fanworm is considered by scientists to be an 'ecosystem engineer' because its feeding fans and leathery protective tubes create a dense, canopy-like structure extending up to 50 cm from its base. These structures can change several key features of the nearby environment – they block light, they provide a habitat for other species to live in, and they change the way water moves through the seabed environment. All research conducted to date suggests that the effects of fanworm incursions in New Zealand are likely to be negative and may have both environmental and economic impacts.



The Mediterranean fanworm *Sabella spallanzanii* in a soft sediment habitat at Waitemata Harbour, Auckland. Photo by the Cawthron Institute.

Evidence from Australian studies suggest it is conceivable that *S. spallanzanii* could become a nuisance fouler on subtidal aquaculture systems in New Zealand. The fanworm's high-filtering capacity could make it a competitor to cultured filter-feeding species such as oysters and mussels.

Although this study has found evidence of subtle negative impacts, further studies over a longer period are required to observe the long-term impacts of fanworm incursion. This knowledge would enable an assessment of the threat widespread incursions might represent for New Zealand's ocean economy and environment.

Download a full copy of the study here: https://www.frontiersin.org/articles/10.3389/fevo.2019.00481/full.

Fanworm-free result for Kaipara and Manukau Harbours

From Samantha Happy, Auckland Regional Council

It's encouraging news that New Zealand's two biggest harbours, the Manukau and Kaipara, were found to be free of new-to-New Zealand pest species, and the Mediterranean Fanworm, in large scale underwater surveys completed in 2019. The surveys highlight the importance of being vigilant whenever we move equipment and boats from the east coast to the west coast.

Mediterranean Fanworm is deeply damaging to our coastlines and has been on the radar of marine scientists since it was first discovered in the South Island over ten years ago. Thousands of individuals can be found in a single square metre and they feed on nutrients and space with native species. It is now well established in a number of east coast North Island harbours, with concerns it will be carried to otherwise pristine locations.

In the Manukau Harbour, the non-indigenous Asian paddle crab *Charybdis japonica*, nudibranch *Okenia pellucid* and hydroid *Ectopleura crocea* were officially detected for the first time.

The Asian Paddle crab is known as an aggressive species that is a strong swimmer and may out-compete native crab species for space and food. It spreads via fouling on vessels, or as larvae in ballast water, where it can live for up to a month.

In the Kaipara Harbour, the non-indigenous colonial tunicates *Botrylloides giganteum*, *Diplosoma listerianum* and *Eudistoma elongatum*, the Australian dog whelk *Tritia burchardi* and hydroid *Ectopleura crocea* were officially detected for the first time.

It is recommended that trailer boats, jetskis, canoes, dive gear and fishing gear are washed with freshwater after use and allowed to thoroughly air dry before moving to a new location.

Information and resources for boat owners and operators are available at www.marinepests.nz

About the surveys:

The surveys, which searched both harbours for target marine pests, were the result of a charter agreement between Auckland Council (utilising the Natural Environment Targeted Rate), Northland Regional Council and Biosecurity New Zealand. It is the first charter agreement of its kind between these agencies and enabled efficient management of this multi-agency project.

Baseline surveys for both harbours were carried out in 2006, and since this time over 90 new marine pest species have been discovered in New Zealand.

Following consultation with mana whenua and stakeholders, the surveys were carried out between April and May 2019 by NIWA, with local assistance from Council staff and student volunteers.

The surveys provided information about presence or absence of target (and non-target) marine pest species, which help to inform marine pest management programmes including the Inter-Regional Marine Pest Pathway Management Plan for the Top of the North Councils.

For the results and full reports from the surveys (click on images below):

TOS Committee member profile

Sophia Clark

Sophia started at Biosecurity New Zealand in January 2020 as a Senior Advisor – Marine tasked with the development of a national approach for managing marine biosecurity. Undertaking a collaborative approach to working with regional councils, iwi, industry and others who have a stake in protecting our marine environment, this project will develop an agreed national vision of working together to help us protect our marine environment

Prior to a stint in London working in environmental consulting, Sophia was the Biosecurity Manager – Marine & Strategy for the Northland Regional Council. During this time, Sophia led the final stages of development for the Regional Pest and Marine Pathway Plan and oversaw the marine biosecurity programme for Northland. Sophia was also involved in the Top of the North Partnership and the initial forming of the proposed inter-regional marine pathway management plan. Previously, Sophia held numerous roles at Northland Regional Council in coastal environmental monitoring and consents and at both NIWA and Kelly Tarltons - taking care of pesky penguins.

Outside of work, Sophia is a keen diver, surfer, fisherwoman and overall adventurer. She is passionate about seeing tangible change for the environment and working in partnership with others to achieve shared outcomes.

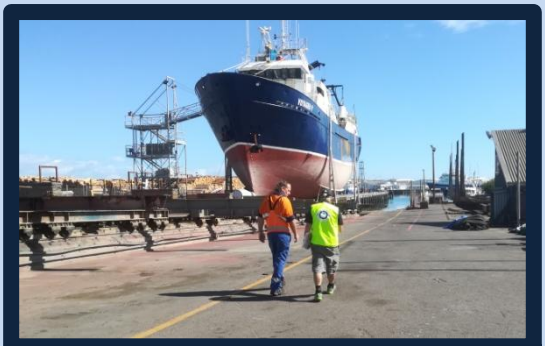
Engagement and consultation

Our annual engagement round with marina and slipway managers revealed high professional standards and also areas where we can do better in reducing marine biosecurity risks.

In the Top of the South Waikawa stands out as the key growth area for marina facilities in the Top of the South. Port Marlborough says that the marina extension to the north-west of the existing marina will provide an additional 252 berths ranging in size from 10m – 25m, some of which will cater for multi-hull vessels. At the time of our visits virtually all berths in the Top of the South were occupied and in places there are waiting lists supporting the need for the Waikawa marina expansion.

Overall, the top of the south has facilities at can slip a vessel up to 80m and over 200 tonnes. Bookings are generally essential for the large slipway facilities, however there can be some flexibility when emergency work is required. Overall the marinas and commercial facilities were well placed to detect marine threats. Areas for improvement are better skills in pest identification and standardised systems for assessing and recording risks. To assist with this we will be running further risk identification workshops in Picton and Havelock. We have also developed a vessel assessment app that can be loaded into a smart phone or tablet. We will be introducing this to facilities managers in our next round of visits.

The coordination team enjoyed the time out in the field working with the key partners, who all shared the same goal of keeping new pests out of the top of the south.



Visiting Calwell Slipway at Port Nelson.

www.marinebiosecurity.co.nz

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